

THE DISCUSSION ON THE SURGERY OF THE LIVER AT THE
1886 MEETING OF THE BRITISH MEDICAL ASSOCIATION.

At a time when many are regretting the steady rise of "specialties," and are lamenting over the narrowness of view which this concentration of study is liable to produce, we may take comfort to ourselves by the thought that, after all, things are working out their own cure. So long as the functions of nearly every organ in the body are but imperfectly known and the effects of disorder of these functions are proportionately obscure, so long may the main energy and intellect of individuals be focused on particular subjects. But every treasure of fact and truth laboriously dug out of the dark unknown by any one man, becomes now the common property of all who care to use it, and may be made a stepping stone for fresh advances in many remote branches of enquiry. We are, therefore, only passing through the chaos stage which leads to a higher order, for the more thoroughly that individual portions of physiology, pathology, or therapeutics, are worked out and understood, the more certainly does this knowledge throw light on all other parts as well, while it also reveals or establishes general principles which are true of all. That which is the peculiar property of the special enquirer to-day will be in common use by the general practitioner tomorrow. At the meeting of the British Medical Association held at Brighton last year an example of this tendency of specialization towards the simplification of knowledge might have been taken from the contribution to the discussion upon hepatic surgery. A physician who has made liver diseases a specialty, two surgeons operating almost entirely upon abdominal cases, one with extensive experience in the surgical diseases of children, and a general surgeon in a large hospital, met together, to compare their views and experience in the surgical treatment of an organ which a few years ago might have been considered outside the range of surgery altogether. The result may be taken in a word to be that certain diseases of the liver are more than ever brought within the pale of ordinary surgical treatment.

Dr. Harley dismissed the practice of leeching over inflamed liver

for want of a vascular connection, but he asserted that with a (large and long) trochar and canula the liver substance might be punctured without risk, and blood drawn off from the congested vessels themselves. Although he made a distinction between this operation when done for acute hepatitis ("hepatotomy") and when for "chronic congestive hypertrophy" ("hepatic capsule-puncture"), the process seems to be much the same in both classes of cases. In the first, blood is withdrawn by a single puncture; in the second, several punctures are made and any liquid that will come is allowed to ooze away. Probably also the therapeutic effect is similar, although the stage of the inflammation is somewhat different.

The results stated in the paper quite justify the method of procedure adopted, but the reasons given for it are not always so conclusive. For instance, it is said that considering the intemperate habits and lowered constitutions of the usual subjects of dangerously acute hepatitis, it would be unwise to abstract blood sufficient in amount to affect the general circulation, and yet in the one case referred to, although the woman was of intemperate habits and so ill as to be in a helpless condition, even in her husband's eyes, "twenty ounces of hepatic blood were abstracted without the slightest deleterious result." Again the expression "puncture of the liver's capsule" is somewhat misleading when the liver substance is also deeply penetrated, and when experiments seems to show that no oozing occurs after the trochar and canula have been withdrawn. Unless the process were similar in the acute as well as in the chronic cases, it would be difficult to understand the reason for the analogy selected between puncture of the capsule of the liver in chronic congestive hypertrophy, and the similar procedure in acute orchitis, acute sciatica and painful whitlow. On the other hand, while the argument is clear for rejecting local blood-letting by means of leeches applied to the skin over the liver, still it is impossible to deny that this treatment has often given relief. One of the speakers at the subsequent discussion, Dr. Cullimore, had himself suffered from acute hepatitis on two occasions, and "well remembered the relief he had experienced from the use of leeches." Whether this was from their local or general effect we have

not evidence to say, but even though direct vascular connection could not account for benefit, still we are at least not able to exclude the possibilities of reflex nervous or vaso-motor influences which might have been set at work.

Apart from these vexed question, however, Dr. Harley, in his able and suggestive paper, has established what was known to comparatively few before—in this country at least—that the liver substance when congested can be freely punctured without risk, and blood and serum withdrawn with good hopes of benefit. This helps to remove the previous dread of interfering with the liver, and confirms the belief in abstracting blood from the vessels of an inflamed organ or area. Possibly the recognized advantage of compressure under such circumstances may receive support from the benefit which followed the application of a firm bandage over the region of the liver, although the object was a different one, *i. e.* prevention of oozing from the seats of puncture.

From Mr. Knowsley Thornton's experience we learn that the smart hæmorrhage which followed an accidental rupture of the liver substance was easily stopped by direct pressure, and did not tend to return, and that when an incision was made through half-an-inch thickness of liver substance "the hæmorrhage was very free, but soon ceased with sponge pressure." It may be remarked in passing, that Mr. Victor Horsley has lately drawn attention to a like behaviour of the brain cortex with respect to hæmorrhage, while he has likened that in turn to what is already known of the kidney.

In one of his cases Mr. Thornton noticed "that when the wound "was nearly closed, the liver being still exposed, where the tube had been, it was found to be exceedingly sensitive; much more so than the skin edges close by, which were a little red and sore."

Three cases of successful treatment of liver abscesses are given, one in a child, by a single tapping, another, also, by Mr. Thornton by incision and drainage through the pleural cavity, and another by Mr. Howard Marsh through the abdominal wall. In all of these antiseptic precautions were efficiently carried out, and there can be little doubt that it is to these that the successful issue is mainly due. Former ex-

perience, where no such precautions were taken, gave extremely bad results. As yet sufficiently wide experience with reliable antiseptic precautions has not been obtained to justify any definite conclusions, although the results in other forms of abscess are sufficiently well known. Mr. Thornton dissected up the pleura and reunited it to make a separate compartment for the drainage tube as it passed through the pleura in one of his cases. In the *ANNALS OF SURGERY* for October, 1886, an abstract of Dr. Kartullis' paper is given, in which he narrates two successful cases of liver abscess treated by resecting portions of ribs, but without any attempt to shut off the pleural cavity from the drainage tube. The old plan of trying to cause an adhesion between the liver and the abdominal wall before attacking an abscess or cyst in the former, has now been quite superseded by free incision and antiseptic precautions. Preliminary aspiration after the parts have been exposed is an important means for lessening the risk of escape into the abdominal cavity. After opening and emptying the abscess, the aperture in the liver or gall bladder is to be sewn to the abdominal wound, and a drainage tube left in. Antiseptic dressings are applied until the discharge ceases and the fistulous opening closes.

It is not more than might have been expected to find that hydatid cysts were treated successfully by free incision and evacuation under antiseptic precautions. In one of Mr. Thornton's cases, after the cyst was emptied its walls were sponged with iodine and the aperture closed by the same stitches which closed the abdominal wound. There was no return. In other cases continued drainage was established, while in others (Mr. Marsh's case) aspiration was sufficient. One death is recorded where previous aspiration had permitted septic changes to begin, and where incision and evacuation came too late. These results only bring hydatid cysts of the liver under a treatment which has been found of service in other kinds of cyst elsewhere in the body.

So far as the diagnosis and treatment of gall stones and hepatic calculi is concerned, while nothing was added by the discussion to this new department of surgical knowledge, still recent views were confirmed. In Mr. Thornton's case of gall stones within the liver

successfully treated by incision and drainage, there had probably been originally an obstruction of the common duct by a calculus which had first formed in the gall bladder. Mr. Thiriar in the *Rev. de Chir.* Mar. '86 (v. ANNALS OF SURGERY, October, 1886) points out the close, perhaps inseparable, connection between obstruction of the liver ducts and formation of hepatic calculi, owing to the necessity for inspissation of bile before deposit can take place.

In Mr. Willet's case of obstructive jaundice from blocking of the common bile duct great relief was given by the formation of a fistulous opening. It is of interest to note that the subsequent death, several months afterwards, was attributed to exhaustion resulting from sores produced upon the skin by the bile as it escaped, not from the effects of the loss of bile from the system. After the bile was allowed to escape externally not only did the colour of the patient's skin and conjunctiva improve, but she gained flesh and improved in spirits. Her motions remained colourless, of course, but they were regular and "large-formed." In such cases, where the common duct is quite impermeable, Mr. Willet raises the question of establishing an entero-biliary fistula. He prefers the colon, where the ascending and transverse parts meet, to the duodenum at the junction of the first and second parts, as the site for this fistulous opening, mainly on account of the ease in reaching the spot, but also because the supposed physiological advantage of the duodenal site is lessened by the impaired character of the bile in such cases, owing to the disease of the liver which prolonged obstruction of the ducts has been found to produce.

Several interesting questions raised by the blocking of the various ducts connected with the liver and gall bladder may be briefly noticed here. What, for instance, is the effect of disuse of the gall bladder from obstruction of the cystic duct? Clinical evidence points to the comparative uselessness of the gall bladder, for patients seem to do wonderfully well without it. Either a constant flow takes place into the duodenum, of bile which is rapidly passed downwards and re absorbed, or the hepatic ducts dilate in the intervals of digestion and act as reservoirs until the stimulus of chyme causes a reflex contraction and discharge of contents into the duodenum. Which of the

two it is does not very much matter so long as we may be fairly confident that the patient's life is not endangered or his health seriously impaired. It is not very uncommon to find in the post-mortem theatre a gall bladder so full of calculi as to have been practically useless as a reservoir and yet during life, except for the passage of gall stones, these patients seem to have had no symptoms by which the conditions might have been suspected. Mr. Thiriar reports that two patients whose gall bladders he had incised were in excellent health three years after the operation. (*Rev. de Chirurgie* v. ANNALS OF SURGERY, Vol. IV., No. 4, p. 339). Again, Mr. Mayo Robson in the *Lancet*. 1885. Vol. II., p. 806, reported two cases of recovery and subsequent good health where there seemed to be a permanent obstruction of the cystic duct, leading to that distention of the gall bladder which had necessitated the operation of cholecystotomy. In addition, physiologists have remarked that the bile found in the gall bladder is so concentrated, as compared with what flows from the hepatic duct, that it must have lain there for some time. From this they argue that the gall-bladder can hardly have the reservoir function for constant storage and discharge which has usually been assigned to it. Putting all these arguments together we may conclude that no very serious results will follow if the gall-bladder be removed, or its cystic duct obstructed, and so other things being equal, the surgeon may deal with it as he pleases without much fear that it will be missed.

On the other hand, when the common bile duct is obstructed and an external fistula has been established, no bile enters the alimentary canal, as it is discharged and lost to the system. The effects of this condition confirm the view which is gaining ground among physiologists that the bile is more an excretion than a secretion. Hence the extremely serious results of its return to the blood by the lymphatics of the liver when there is complete obstruction, hence also the comparatively slight effects of its non-discharge into the duodenum. The food is not so well digested, nor so efficiently absorbed, and the feces are more apt to decompose—but in spite of this a patient rapidly sinking under complete obstruction to the bile, seems to regain flesh and

spirits when all the bile is allowed to escape. There remains then the risk of irritation by the action of bile on the skin at the wound—this will have to be faced, but might surely be much lessened by the use of unguents on the skin and of absorbent dressings.

One other point of considerable interest and importance is the effect which adhesions to surrounding parts produce upon the liver. Apparently the liver must require free scope to move with the diaphragm, and perhaps also to alter its size with the flow of blood through it, for adhesions set up the most violent symptoms, like those of gall-stones, and division of adhesions causes these symptoms at once to subside. Mr. Knowsley Thornton's case of permanent and Mr. Lawson Tait's case of temporary relief of urgent symptoms by the division of adhesions only, seem to admit of scarcely any other explanations. Possibly in the latter case adhesions had formed again and so the symptoms came back. At least the relief of symptoms in these two cases will furnish still another inducement to surgeons to open the abdomen in serious and obscure cases with an increased prospect of doing good.

Mr. Lawson Tait has published the details of several more cases and has added a tabular view of his results under the three heads of (1) Seven cases of exploratory incision—five being for cancer and ultimately fatal. (2) Thirteen cases of hepatotomy—chiefly for hydatids and gall-stones—and all primarily and secondarily successful. (3) Thirty cases of cholecystotomy with good results except where there was cancer. An important factor in the prognosis of liver cases is held by Mr. Tait to be the presence of jaundice—as he puts it, “but this stands out in my experience with perfect certainty, that in not one of the uncomplicated cases of gall-stone upon which I have operated, and when the secondary result has been as successful as the primary, has jaundice been at all a symptom noted in the case. On the other hand in the one fatal case in my list and in three others in which the secondary results have been unsatisfactory, jaundice has not only been a marked, but it has been the principal symptom.” So strongly does he hold this that he considers jaundice a contra-indication for operation for gall-stones when every thing else might seem to demand it.

Doubtless further experience and research will still further open up the field of hepatic surgery, but it is impossible to doubt that already the ground is well broken up.

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RESULTS OF SOCIN'S OPERATIONS FOR THE RADICAL CURE
OF HERNIA AT THE BAËLE CLINIC.

The *Deutsche Zeitschrift für Chirurgie* for August, 1886 (Bd. xxiv. Hft. 3 and 4) contains a lengthy communication, occupying one hundred and eighteen pages of the journal, from the pen of Johannes Anderegg, of Glarus, Switzerland, which is devoted to a clinical study of the cases of hernia treated by radical operation at the surgical clinic at Bâle, and contains besides the author's original remarks, full statistical data of the material considered, and concise abstracts of the whole number of cases reported upon—one hundred and twenty-eight in all.

The young author had prepared the paper as a thesis for obtaining his diploma ("Inaugural Dissertation") but succumbed to an attack of acute pneumonia, before it could be printed.

The paper is therefore edited by Professor Socin, of Bâle, who, however, has refrained, under the circumstances, from making such corrections and additions, as he would otherwise have suggested to the author.

The object of the paper is to contribute towards the solution of the question as to the real value of the radical cure of hernia by operation; and the results at which the author arrives are contained in eleven paragraphs submitted for discussion, which we give below:—

Some of the cases considered were published by Professor Socin at the Eighth Congress of German Surgeons in 1879; and since then three separate dissertations based upon cases treated at the Bâle surgical clinic have been written, prior to the year 1881, all of which are taken note of in the present paper.

The subject matter embraces one hundred and thirty-six operations in all, which were performed upon one hundred and twenty-eight patients. In fifty-six cases non-incarcerated herniæ were operated upon.